

What is claimed is:

1. A transporter for carrying a payload over a surface, the transporter comprising:
  - a. a surface-contacting module for traversing the surface;
  - b. a power base, the power base pivotally coupled to the surface-contacting module about a base pivot axis, the base pivot axis substantially parallel to the surface, the base characterized by a base pivot angle with respect to the surface-contacting module;
  - c. a support for supporting the payload, the support pivotally coupled to the power base about a support pivot axis, characterized by a support pivot angle with respect to the vertical plane; and
  - d. a mechanical linkage for maintaining the support pivot angle substantially constant as the power base pivots with respect to the surface-contacting module.
2. The transporter according to claim 1, further comprising a first rest for partial support of the payload, the first rest pivotally coupled to the support about a first rest pivot axis, the first rest pivot axis substantially parallel to the surface, defining a first rest pivot angle with respect to the vertical plane.
3. The transporter according to claim 2, further comprising a first linkage, coupling the first rest to the power base in such a manner as to vary the first rest pivot angle as a function of the base pivot angle.
4. A transporter according to claim 2, wherein the first rest pivot angle is less than a specified angle when the support pivot axis is above a specified height and wherein the first rest pivot angle is greater than the specified angle when the support pivot axis is below the specified height.
5. A transporter according to claim 2, further comprising a second rest for partially supporting the payload, the second rest pivotally coupled to the support about a second rest pivot axis, the second rest pivot axis substantially parallel to the surface, the second rest characterized by a second rest pivot angle with respect to the vertical plane.
6. A transporter according to claim 5, further comprising a second linkage, coupling the second rest to the power base in such a manner as to vary the second rest pivot angle as a

function of the base pivot angle.

7. A transporter according to claim 2, further comprising a first roller follower for governing the first rest angle as a function of the base pivot angle.
8. A transporter according to claim 5, further comprising a second roller follower for governing the second rest angle as a function of the base pivot angle.
9. A transporter according to claim 5, further comprising a first roller follower for governing the first rest angle as a function of the base pivot angle and a second roller follower for governing the second rest angle as a function of the base pivot angle.
10. A transporter according to claim 2, wherein the first rest further includes a stop such that the first rest pivot angle is at least a specified angle.
11. A transporter according to claim 2, wherein the first rest is a footrest for supporting a foot of a user.
12. A transporter according to claim 2, further comprising a first motor, coupled to the first rest, for driving the first rest to move with respect to the support such that the first rest pivot angle with respect to the vertical plane varies as the power base pivots with respect to the surface-contacting module.
13. A transporter according to claim 5, further comprising a second motor, coupled to the second rest, for driving the second rest to move with respect to the support such that the second rest pivot angle with respect to the vertical plane varies as the power base pivots with respect to the surface-contacting module.
14. A transporter according to claim 1, further including a caster coupled to the base in such a manner as to be capable of being brought into engagement with the surface during operation of the transporter.